Items Description Set AU=(BANCTEL F? OR BANCTEL, F?) S1 12 AU=(PIETRE A? OR PIETRE, A?) S2 12 12 S3 S1 AND S2 (S1 OR S2) AND (DATASTRUCTURE? OR DATA()STRUCTURE? OR TREE 3 S4 OR BTREE? OR TREES OR DIRECTORY OR DIRECTORIES OR TRIES) S5 12 S3 OR S4 IDPAT (sorted in duplicate/non-duplicate order) S6 12 IDPAT (primary/non-duplicate records only) S7 4 File 347: JAPIO Nov 1976-2004/Oct (Updated 050209) (c) 2005 JPO & JAPIO File 350: Derwent WPIX 1963-2005/UD, UM &UP=200517 (c) 2005 Thomson Derwent File 348: EUROPEAN PATENTS 1978-2005/Feb W04 (c) 2005 European Patent Office File 349:PCT FULLTEXT 1979-2002/UB=20050310,UT=20050303

(c) 2005 WIPO/Univentio

```
7/5/1
          (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
013525211
             **Image available**
WPI Acc No: 2001-009417/200102
XRPX Acc No: N01-007100
 Method of modification of a protocol between distributed objects
Patent Assignee: ALCATEL (COGE ); ALCATEL SA (COGE ); ALCATEL ALSTHOM CIE
 GEN ELECTRICITE (COGE )
Inventor: BANCTEL F ; PIETRE A
Number of Countries: 029 Number of Patents: 006
Patent Family:
                             Applicat No
Patent No
             Kind
                    Date
                                            Kind
                                                   Date
                                                            Week
EP 1045306
              A1 20001018 EP 2000400982
                                           Α
                                                 20000410
                                                           200102
              Α
                   20001019 AU 200027640
                                                 20000410
AU 200027640
                                            Α
                  20001015 CA 2302852
20001020 FR 994713
                                                 20000329
CA 2302852
              A1
                                            Α
FR 2792435
              A1
                                             Α
                                                 19990415
                                                           200102
JP 2000339280 A
                   20001208
                            JP 2000114074
                                                 20000414
                                            Α
US 6618765
              В1
                  20030909 US 2000550295
                                            Α
                                                 20000414
Priority Applications (No Type Date): FR 994713 A 19990415
Patent Details:
Patent No Kind Lan Pg
                        Main IPC
                                     Filing Notes
EP 1045306
            A1 F 9 G06F-009/46
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI
AU 200027640 A
                     H04L-012/66
CA 2302852
             Al F
                      H04L-029/06
FR 2792435
             A1
                      G06F-019/00
                     7 G06F-015/16
JP 2000339280 A
US 6618765
                      G06F-009/44
             В1
Abstract (Basic): EP 1045306 A1
       NOVELTY - The method sets up a personalized notification protocol
   between an object X in a client process and an object S in a server
   process. The client object is assigned a connection (CP3) to the server
    object. The connection has a vector interface allowing an object-object
   protocol between client and connection point via a connection proxy and
    stub, which provide a known notification protocol.
        USE - Distributed environments operating under the Object Request
    Broker management environment
       ADVANTAGE - Allows alteration of protocol between distributed
   objects without need to recompile, and allows alteration or protocol
   between more than two objects.
        DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of
    connection between client and server
       Client process object (X)
        Server process object (S)
       Assigned connection (CP3)
       pp; 9 DwgNo 3/4
Title Terms: METHOD; MODIFIED; PROTOCOL; DISTRIBUTE; OBJECT
Derwent Class: T01
International Patent Class (Main): G06F-009/44; G06F-009/46; G06F-015/16;
  G06F-019/00; H04L-012/66; H04L-029/06
```

International Patent Class (Additional): G06F-015/177

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7/5/2
               (Item 2 from file: 350)
     DIALOG(R) File 350: Derwent WPIX
     (c) 2005 Thomson Derwent. All rts. reserv.
     013525088
                  **Image available**
     WPI Acc No: 2001-009294/200102
     XRPX Acc No: N01-006988
       Implementing a tree system for distributed objects by storing in a
       parent object the address of a son object if in the same process and
       information sending enquiry back to central directory if not
     Patent Assignee: ALCATEL (COGE ); ALCATEL SA (COGE )
     Inventor: BANCTEL F ; PIETRE A
     Number of Countries: 029 Number of Patents: 006
     Patent Family:
                                  Applicat No
                                                Kind
                                                       Date
     Patent No
                  Kind
                         Date
                                                                Week
                   A1 20001004 EP 2000400870
     EP 1041498
                                                Α
                                                     20000330
                                                               200102
     FR 2791788
                   Αl
                       20001006 FR 994072
                                                 Α
                                                     19990401
                                                               200102
                  A2 20001012 WO 2000FR802
     WO 200060452
                                                 Α
                                                     20000330
                                                               200102
                        20001023 AU 200036629
                                                     20000330
     AU 200036629 A
                                                 Α
                                                               200107
     AU 747472
                        20020516 AU 200036629
                                                     20000330
                   В
                                                 Α
                                                               200244
                                 JP 2000609878
     JP 2002541544 W
                        20021203
                                                Α
                                                     20000330
                                                               200309
                                  WO 2000FR802
                                                 Α
                                                     20000330
     Priority Applications (No Type Date): FR 994072 A 19990401
     Patent Details:
     Patent No Kind Lan Pg
                             Main IPC
                                          Filing Notes
     EP 1041498
                 A1 F 9 G06F-017/30
        Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
        LI LT LU LV MC MK NL PT RO SE SI
                           G06F-012/08
     FR 2791788
                 A1
     WO 200060452 A2 F
                           G06F-009/00
        Designated States (National): AU CA JP US
     AU 200036629 A
                           G06F-009/00
                                          Based on patent WO 200060452
     AU 747472
                  В
                           G06F-009/00
                                          Previous Publ. patent AU 200036629
                                          Based on patent WO 200060452
     JP 2002541544 W
                        16 G06F-009/46
                                          Based on patent WO 200060452
     Abstract (Basic): EP 1041498 A1
             NOVELTY - A central directory (Pr0) controls the search for all
         objects and includes a data structure (Tab0) which lists all
         parent/son relationships with a process address for the final object. A
         parent object (A) contains the address of a son object (B) if the
         latter is in the same process but otherwise has information to send the
         enquiry back to the central directory (Pr0) which uses the data
         structure (Tab0) to search a different indicated process.
             USE - To manage a tree system for distributed objects
             ADVANTAGE - The search for an object is not frustrated by an
         intermediate process being out of service and the central directory
         is able to route enquiries to a process or corresponding redundant
         process correctly using current system data
             DESCRIPTION OF DRAWING(S) - The drawing shows the central
         directory and processes
             Central directory (Pr0)
                               (Tab0)
                   structure
             Parent object (A)
             Son object (BB)
             pp; 9 DwgNo 2/2
                             TREE ; SYSTEM; DISTRIBUTE; OBJECT; STORAGE; PARENT
     Title Terms: IMPLEMENT;
       ; OBJECT; ADDRESS; SON; OBJECT; PROCESS; INFORMATION; SEND; ENQUIRY; BACK
       ; CENTRAL; DIRECTORY
     Derwent Class: T01
     International Patent Class (Main): G06F-009/00; G06F-009/46; G06F-012/08;
       G06F-017/30
     International Patent Class' (Additional): G06F-015/16
```

```
Description
Set
        Items
      670103
                ROOT? ? OR PARENT? ? OR LEAF? ? OR SON OR SONS OR BRANCH? -
S1
             OR TWIG? ? OR FATHER? ? OR STEM? ?
S2
        56913
                BTREE OR TREE OR TREES OR TRIES
                DATASTRUCT? OR DATA()STRUCTURE?
S3
        28097
                ACCESS() (PATH OR PATHS OR ROUTE? OR MEANS) OR LAP OR LOGIC-
S4
        17132
             AL()ACCESS?
                NAME? OR (CHARACTER? OR ALPHANUMERIC) () (SEQUENC? OR STRING-
S5
       455503
                (CENTRAL OR PRIMAR? OR MAIN) (2N) (DIRECTORY OR DIRECTORIES)
S6
          446
S7
         6508
                (LOGICAL OR PHYSICAL) (N) (NAME? OR ADDRESS?)
S8
       129251
                (PROCESS OR PROCESSES OR PROGRAM? OR ENVIRONMENT? OR OPERA-
             TING()SYSTEM?) (2N) (SAME? OR CONTAIN? OR WITHIN OR WITH()"IN" -
             OR EMBED? OR INTEGRAT? OR INTEGRAL OR MATCHING OR IDENTICAL? -
             OR MATCHED?)
                RETURN? OR REFER? OR REDIRECT? OR DIRECTED OR DIRECTING
S9
      1309682
S10
           59
                S1(S)(S2 OR S3)(S)S4
S11
            1
                S10(S)S6
           27
                S10(S)S5
S12
                S10(S)S8
S13
           22
                S10(S)S9
           31
S14
           20
                S14(S)(S5 OR S6 OR S7)
S15
           27
                (S11 OR S12 OR S13 OR S15) AND IC=G06F?
S16
           27
                IDPAT (sorted in duplicate/non-duplicate order)
S17
                IDPAT (primary/non-duplicate records only)
S18
           26
File 348: EUROPEAN PATENTS 1978-2005/Feb W04
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20050310,UT=20050303
```

(c) 2005 WIPO/Univentio

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18/3, K/3
              (Item 3 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
00707155
EXTENDED ATTRIBUTES FILE SYSTEM
DATEISYSTEM MIT ERWEITERTEN ATTRIBUTEN
SYSTEME DE FICHIERS A ATTRIBUTS ETENDUS
PATENT ASSIGNEE:
  NOVELL, INC., (1486133), 1555 North Technology Way, Orem, UT 84057-2399,
    (US), (applicant designated states:
    AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE)
  NEVAREZ, Carlos, A., 424 West 1010 North, Orem, UT 84057, (US)
LEGAL REPRESENTATIVE:
  Hanna, Peter William Derek et al (72341), Tomkins & Co., 5 Dartmouth Road
    , Dublin 6, (IE)
PATENT (CC, No, Kind, Date): EP 733238 A1
                                             960925 (Basic)
                              EP 733238 A1
                                              970108
                               EP 733238 B1
                                              980401
                               WO 9516241 950615
APPLICATION (CC, No, Date):
                              EP 95905869 941207; WO 94US14097 941207
PRIORITY (CC, No, Date): US 165971 931210
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
  NL; PT; SE
INTERNATIONAL PATENT CLASS: G06F-017/30
NOTE:
  No A-document published by EPO
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                      Word Count
      CLAIMS B
                           9814
               (English)
                                       1157
      CLAIMS B
                 (German)
                           9814
                                       1237
      CLAIMS B
                 (French)
                            9814
                                       1306
      SPEC B
                (English)
                           9814
                                       3356
Total word count - document A
                                          0
Total word count - document B
                                       7056
```

## INTERNATIONAL PATENT CLASS: G06F-017/30

Total word count - documents A + B

...SPECIFICATION 1993, implements a method for dynamically expanding and rapidly accessing file directories in a UNIX tree -based file directory system. The technique provides name -oriented accessing of files having at least zero records, any access path to files and records through an external store coupling the computer being defined by a...

7056

...a unique serial number assigned to the record and the unique serial number of any parent record entry. Each record entry includes the token, file or record name, and external store address or pointer. The name directory is a subset of the attribute directory. A traverse through the tokens constitutes a leaf -searchable B- tree. The names directory provides fast access into the attribute directory. Thus, Baird, et al., is directed to a method for dynamically expanding and rapidly accessing file directories.

Another prior art method...

```
DIALOG(R) File 349: PCT FULLTEXT
(c) 2005 WIPO/Univentio. All rts. reserv.
00745491
           **Image available**
TECHNIQUES FOR PERFORMING A DATA QUERY IN A COMPUTER SYSTEM
TECHNIQUES D'EXECUTION D'UNE DEMANDE DE DONNEES DANS UN SYSTEME
    INFORMATIQUE
Patent Applicant/Assignee:
  GTE LABORATORIES INCORPORATED, 1209 Orange Street, Wilmington, DE 19801,
    US, US (Residence), US (Nationality)
Inventor(s):
  PONTE Jay, 5605 Stearns Hill Road, Waltham, MA 02451, US
Legal Representative:
  SUCHYTA Leonard Charles, Gte Service Corporation, 600 Hidden Ridge Road,
    MC HQE03G13, Irving, TX 75038, US
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200058863 A1 20001005 (WO 0058863)
  Application:
                        WO 2000US8450 20000330 (PCT/WO US0008450)
  Priority Application: US 99283268 19990331; US 99282730 19990331
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES
  FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
  LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
  TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 49717
Main International Patent Class: G06F-017/10
International Patent Class: G06F-005/14 ...
... G06F-017/30
Fulltext Availability:
  Claims
Claim
... 1 000
  CONGIGURATION STATE
  @ 452 FILE FILE
  PHTML FILES INSTANTIATOR
  PHTML INTERPRETER 14
  EXECUTION
  TREES --
  454
  t.
  OTHER DATA
  FIG. 8
  /71
  EΜ
  SUj -p
  'f@; -
```

18/3,K/24

(Item 24 from file: 349)

-Sh o Consumer... ...are listed below. To select a category, simply click on it and you will be returned to a search form with the category filled in. ABQDEF... ...By Distance GTE'S YELLOW PAGES Search by Distance MORE TOOLS Enter Caregory or Business Name : Category: restaurant Lap Categories Business earch Tips 1830 Name : MM] Search Within Miles Of: [@@I Consumer Advertise Street: Keywords C@Q Guide@ with Us... ...closest businesses presented first. Each business listing will include the distance in miles from the reference location that you provided. If you enter a street address, the distance will be measured... ...YELLOW PAGES MORE TOOLS Enter Category (Top Categories 1802 SHOES 1 7 Business Name (e.g., GTE) OH Shoo Online D Jd' A( Us 2 Enter City (optional) 1804...Home mmo@ Categories =\*@ Results Shoes-Custom Made (1 - 2 of 2) Click (9 or business name for map and more info Shop Online for computeps Buy a mailing list for this... ... Matching Business This business matches the telephone number you entered. Please click on the business name if this is the correct business: Matching Blue Cross & Blue Shield Business: (617) 832-5000...entered information. Fields marked 0 are required as part of your list Business information Business Name : 0 1 Blue Cross & Blue Shield (Use normal capitalization, e.g., GTE SuperPages, not GTE...PHTML FILE STORAGE PHTML REPRESENTATION AND EXPAND STORING THE FROM PHTML EXECUTION EXPANSION IN THE TREE PHTMLCACHE I i@ I EXECUTE PHTML FILE PORTIONS 954 IN ACCORDANCE WITH USER QUERY TO... ...OTHER 966 SEARCH DATA

..OTHER 966
SEARCH DATA
FORMULATE RESULT DATA SET
IN ACCORDANCE WITH 968
USER QUERY REQUEST
RETURN RESULT DATA 970
TO PARSE DRIVER

FIG. 30

```
/71
 KOFFICE 1600
 TRANSFER
 COMPLETE
 1602
  604....
...MARK-UP FILES
 1646
 FIG. 32
 200
 NO YES
 QUERY CACHE
 I?
 204
 LOOK FOR PARENT SEARCH RESULTS IN DAT USE DATA Q1
 QUERY CACHE BY DROPPING TERMS
 205
 NO SEARCH YES
 RESULTS IN D
 QUERY CACHE
 ir FOR EACH PARENT , CAL,
 212
 USE ALTERNATE
 TECHNIQUE
 CHOOSE MININUM COST PARE
 APPLY MINIMUM COST DERIV...
...34
 240
 DETERMINE A SUBSET OF OUERY TERMS
 THAT UNIQUELY MAP A QUERY TO A NAME
 v 244
 FORM A QUERY STRING USING THE SUBSET OF
 QUERY TERMS AS THEY MAY APPEAR IN EACH
 PARTICULAR QUERY
 248
 DETERMINE IF NAME CORRESPONDS TO A DATA
 SET IN THE QUERY CACHE
 FIG. 35
 /71
 2 5 0...
...254
 BUSINESS LISTING - 2 INFORMATION 256
 BUSINESS LISTING - N INFORMATION 258
 FIG. 36
 CONSTRUCT A NAME FOR THE
 TOTAL-CITY CACHE 260
 CORRESPONDING TO
 THE CURRENT QUERY
 262
 YES TAL-CITY NO
 QUERY CACHED
 PERFOR@
 264 SE
 SAVE REFERENCE TO
 THE CACHED ITEM
 BY MOVING TO HOT CACHE
 CACHE SE)
```

```
IN HC
 TO 270
 FIG. 38
 FIG. 37
 /71
 FROM 264 & 268
 FIG. 37
 CONSTRUCT A NAME FOR THE 270
 MULTI-CITY CACHE CORRESPONDING
 TO THE CURRENT QUERY
 272
 YES NO
 UERY CACHED
 276
 PERFORM MULTI-CITY
 SEARCH
 SAVE REFERENCE TO 274
 CACHED RESULTS BY PLACING
 IN HOT CACHE 278
 CACHE SEARCH RESULTS
 IN HOT...
...Farm
 GTE's YELLOW PAGES MORE TOOLS
 Enter Category (Tor) C eaories)
 art supplies
 Business Name (e.g., GTE) Shop Online C dd' A( Us
 E t Cat (optional...NO NO 1 MATC
 RENCE <= 3 '(1028 NTRY IN DAT)
 r1024 NO MATCH
 USE " NAME EDIT DISTANCE 1032
 HEURISTIC" TO COMPUTE
 THE NAME DISTANCE
 1036
 NO TRY WIT YES
 1026 MAXIMUM
 YES I N NO SCORE
 <1 0...
...TO 1086
 FIG. 51 FORM SUBS
 FOR ONE OR
 SECONDARY SEARCH MATCHING
 IF
 FIG. 48
 " NAME MATCH"
 CANONIZE NAME 1060
 ENTRIES
 ΙF
 TOKENIZE NAME INTO 062
 COMPONENTS
 ir
 PERFORM SETWISE CONTENTS 1064
 COMPARISON OF NAME
 COMPONENTS FOR ENTRIES
 1066
 SCORE IS 1 POINT PER
 MATCHING COMPONENT
```

```
if @ 068
  RETURN
 FIG. 49
 "DERIVE SCORE"
 ORE IS NAME MAT 1080
 SCORE + I IF THE ZIP CODE
 MATCHES
 RMALIZED SCORE = 1082
 SCORE/# TOKENS IN...
...D5,2
 11SECONDARY S FIG. 48
 1086
 UPDATE RECOR
 I 088
 REMOVE', STOP WORDS" FROM
  NAME FIELD
 EARCH 0 DATABAS 1090
 PERFOR S
 BASED ON CONJUNCTION OF
 TOKENIZED NAME FIELD
 COMPONENTS AND ZIP COD
 1092
 ORE THA YES
 NO MATCHING
 ENTRI
 ATCH
 TO @1010...
...1470
 MATCHING IF RECORD IDENTIF INSERT UPDATE IF DELETE IF RECORD IDENTIFIER
 UF AND HEADING NAME MATCH RECORD IDENTIFIER IS NEW OF AN EXISTING
 RECORD OF Ei'
 IS NOT IN THE...
...WORKING
 COPY OF CATEGORY FILE
 FIG. 56
 1442
 520
 FIND DUPLICATE CATEGORIES
 TF
 CHOOSE CATEGORY NAME MOST FREQUENTLY USED
 BY SEARCHING THE BUSINESS LISTING FILES FOR FREQUENCY
 DETERMINATION
 I F 15,'
 PATCH BUSINESS LISTING FILES WITH UPDATE CATEGORY
 IDENTIFIERS AND NAMES AS APPROPRIATE
 IF 153(
 UPDATE CATEGORY FILE WITH COLLAPSED CATEGORY
 FIG. 57
 TOKENIZE FIRST CATEGORY NAME 1500
 T70 1504
 F KENIZE NEXT CATEGORY NAME
 Ilr 1506
 COMPARE TOKENIZED CURRENT AND
 PREVIOUS CATEGORY NAMES AND DERIVE
 SCORE IN ACCORDANCE WITH NUMBER OF
 MATCHING NAME COMPONENTS
 1508
```

NO YES >75% 1510 L ADVANCE TO NEXT CATEGORY CATEGORIES ARE DUPLICATES PROP...

```
Items
                Description
Set
                ROOT? ? OR PARENT? ? OR LEAF? ? OR SON OR SONS OR BRANCH? -
S1
       670103
             OR TWIG? ? OR FATHER? ? OR STEM? ?
S2
        56913
                BTREE OR TREE OR TREES OR TRIES
S3
        28097
                DATASTRUCT? OR DATA()STRUCTURE?
S4
        17132
                ACCESS() (PATH OR PATHS OR ROUTE? OR MEANS) OR LAP OR LOGIC-
             AL() ACCESS?
S5
       455503
                NAME? OR (CHARACTER? OR ALPHANUMERIC) () (SEQUENC? OR STRING-
             ?)
S6
          446
                (CENTRAL OR PRIMAR? OR MAIN) (2N) (DIRECTORY OR DIRECTORIES)
S7
         6508
                (LOGICAL OR PHYSICAL) (N) (NAME? OR ADDRESS?)
S8
       129251
                (PROCESS OR PROCESSES OR PROGRAM? OR ENVIRONMENT? OR OPERA-
             TING()SYSTEM?)(2N)(SAME? OR CONTAIN? OR WITHIN OR WITH()"IN" -
             OR EMBED? OR INTEGRAT? OR INTEGRAL OR MATCHING OR IDENTICAL? -
             OR MATCHED?)
$9
      1309682
                RETURN? OR REFER? OR REDIRECT? OR DIRECTED OR DIRECTING
S10
           59
                S1(S)(S2 OR S3)(S)S4
S11
            1
                S10(S)S6
S12
           27
                S10(S)S5
S13
           22
                S10(S)S8
           31
                S10(S)S9
S14
           20
S15
                S14(S)(S5 OR S6 OR S7)
S16
           27
                (S11 OR S12 OR S13 OR S15) AND IC=G06F?
           27
S17
                IDPAT (sorted in duplicate/non-duplicate order)
S18
           26
                IDPAT (primary/non-duplicate records only)
                ROOT? ? OR PARENT? ? OR FATHER? ?
S19
      112813
S20
          240
                (S2 OR S3)(S)S19(S)S8
S21
            4
                S20(S)S6
S22
           31
                S10(S)S9
S23
                (S21 OR S22) NOT S16
           16
S24
           11
                S23 AND IC=G06F?
S25
                S24 NOT AD=19990401:20010401
            8
                S25 NOT AD=20010401:20050501
            6
File 348: EUROPEAN PATENTS 1978-2005/Feb W04
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20050310,UT=20050303
         (c) 2005 WIPO/Univentio
```

```
26/3,K/2
              (Item 2 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
00367282
```

Method of performing operations in a relational data base management system.

Verfahren zur Durchfuhrung von Operationen in einem relationalen Datenbankverwaltungssystem.

Methode d'execution d'operations dans un systeme relationel de gestion de base de donnees.

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE; FR; GB)

Crus, Richard Anthony, 1980 Dorrance Court, San Jose, CA 95125, (US) Engles, Robert William, 6899 Hampton Drive, San Jose, CA 95120, (US) Haderle, Donald James, 812 Lilac Way, Los Gatos, CA 95030, (US) Herron, Howard Winston, 1444 Bing Drive, San Jose, CA 95129, (US) LEGAL REPRESENTATIVE:

Burt, Roger James, Dr. (52152), IBM United Kingdom Limited Intellectual Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 351209 A2 900117 (Basic)

EP 351209 A3 921014 EP 351209 B1

APPLICATION (CC, No, Date): EP 89307075 890712;

PRIORITY (CC, No, Date): US 219513 880715

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-015/40

ABSTRACT WORD COUNT: 155

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPBBF1	470
CLAIMS B	(English)	EPBBF1	480
CLAIMS B	(German)	EPBBF1	450
CLAIMS B	(French)	EPBBF1	477
SPEC A	(English)	EPBBF1	10268
SPEC B	(English)	EPBBF1	10349
Total word cou	nt - documen	it A	10738
Total word cou	nt - documen	it B	11756
Total word cou	nt - documen	ts A + B	22494

INTERNATIONAL PATENT CLASS: G06F-015/40

... SPECIFICATION which uses only a single pass through the data.

A third prior art version of referential integrity incorporates paths or "links" representing constraints between a parent and its dependent records into the basic access path to the parent data. This method of "linked" referential constraints is typically implemented by using a chained list to go from a parent to all its dependents, or by using a B- tree rooted in the parent to point to all dependents. These linked methods suffer from several disadvantages. One is that the enforcement of such linked referential constraints requires special provisions for detecting and resolving self- referencing and cyclic constraints. Another is that constraints cannot be added to ...requires restructuring the data. There is therefore a need for an efficient method of enforcing referential constraints which allows ready modification of the constraints without restructuring the data.

One object of...

26/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.

## 00351573

Method for obtaining access to data structures without locking. Verfahren zur Gewinnung von Verriegelungsfreiem Zugriff zu Datenstrukturen. Methode pour obtenir l'acces a des structures de donnees sans verrouillage. PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)
INVENTOR:

Bozman, Gerald Parks, 609 Ramapo Valley Road, Oakland New Jersey, (US) LEGAL REPRESENTATIVE:

Schafer, Wolfgang, Dipl.-Ing. (62021), IBM Deutschland Informationssysteme GmbH Patentwesen und Urheberrecht, D-70548 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 362709 A2 900411 (Basic) EP 362709 A3 920819

APPLICATION (CC, No, Date): EP 89118049 890929;

PRIORITY (CC, No, Date): US 255000 881007

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-015/403; G06F-015/419

ABSTRACT WORD COUNT: 85

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) EPABF1 1649 SPEC A (English) EPABF1 5271 Total word count - document A 6920 Total word count - document B n Total word count - documents A + B 6920

INTERNATIONAL PATENT CLASS: G06F-015/403 ...

## ... G06F-015/419

...SPECIFICATION Koffeman, K. L. (Eds.), North-Holland, 1974, pp 385-397, which have been called B+- trees in Comer, D., "The ubiquitous B- tree, "ACM Computing Surveys, vol. 11, pp. 121-138, 1979. and B\*- trees in Bayer, R. and Unterauer, K., "Prefix B- trees," ACM Trans. on Database Systems, vol. 2, 1 (March 1977), pp. 11-26, and Wedekind. The terminology of Comer, is used in the present description to refer to leaf search B- trees.

It is often desirable that weak searchers of B+-trees not be required to use...

```
Set
        Items
                Description
                ROOT? ? OR PARENT? ? OR LEAF? ? OR SON OR SONS OR BRANCH? -
S1
      1934197
             OR TWIG? ? OR FATHER? ? OR STEM? ?
S2
       483419
                BTREE OR TREE OR TREES OR TRIES
                DATASTRUCT? OR DATA()STRUCTURE?
S3 .
        96666
                ACCESS() (PATH OR PATHS OR ROUTE? OR MEANS) OR LAP OR LOGIC-
S4
        21510
             AL() ACCESS?
S5
       674050
                NAME? OR (CHARACTER? OR ALPHANUMERIC) () (SEQUENC? OR STRING-
S6
          197
                 (CENTRAL OR PRIMAR? OR MAIN) (2N) (DIRECTORY OR DIRECTORIES)
         1245
S7
                 (LOGICAL OR PHYSICAL) (N) (NAME? OR ADDRESS?)
       192890
                 (PROCESS OR PROCESSES OR PROGRAM OR ENVIRONMENT? OR OPERAT-
S8
             ING()SYSTEM?) (2N) (SAME? OR CONTAIN? OR WITHIN OR "WITH"()IN OR
              EMBED? OR INTEGRAT? OR INTEGRAL OR MATCHING OR IDENTICAL? OR
S9
      1933284
                 RETURN? OR REFER? OR REDIRECT? OR DIRECTED OR DIRECTING OR
             DIRECTS
S10
            0
                 S1 AND S2 AND S3 AND S4 AND S8
S11
          482
                 S1 AND S2 AND S8
                S11 AND (S4 OR S9)
S12
           39
S13
           18
                S11 AND S5
S14
            0
                S11 AND S6
S15
            0
                S11 AND S7
S16
            0
                S1 AND S2 AND S6 AND S7
S17
           55
                S12 OR S13
S18
           41
                 RD (unique items)
S19
           21
                S18 NOT PY>1999
       8:Ei Compendex(R) 1970-2005/Mar W1
          (c) 2005 Elsevier Eng. Info. Inc.
      35:Dissertation Abs Online 1861-2005/Feb
          (c) 2005 ProQuest Info&Learning
      65:Inside Conferences 1993-2005/Mar W2
          (c) 2005 BLDSC all rts. reserv.
       2:INSPEC 1969-2005/Mar W1
          (c) 2005 Institution of Electrical Engineers
     94:JICST-EPlus 1985-2005/Feb W1
          (c) 2005 Japan Science and Tech Corp(JST)
File 111:TGG Natl.Newspaper Index(SM) 1979-2005/Mar 17
          (c) 2005 The Gale Group
File
       6:NTIS 1964-2005/Mar W1
          (c) 2005 NTIS, Intl Cpyrght All Rights Res
File 144: Pascal 1973-2005/Mar W1
          (c) 2005 INIST/CNRS
File
      34:SciSearch(R) Cited Ref Sci 1990-2005/Mar W2
          (c) 2005 Inst for Sci Info
File
      99:Wilson Appl. Sci & Tech Abs 1983-2005/Feb
          (c) 2005 The HW Wilson Co.
File 95:TEME-Technology & Management 1989-2005/Feb W1
         (c) 2005 FIZ TECHNIK
```

19/5/11 (Item 9 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
(c) 2005 ProQuest Info&Learning. All rts. reserv.

744836 ORDER NO: AAD81-09709

DECIDABILITY AND EXPRESSIVENESS OF LOGICS OF PROCESSES

Author: ABRAHAMSON, KARL RAYMOND

Degree: PH.D. Year: 1980

Corporate Source/Institution: UNIVERSITY OF WASHINGTON (0250) Source: VOLUME 41/11-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 4179. 173 PAGES Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

We define and study several logics of processes. The logics GPL and MPL are based on a second order tense logic, where the two types of variable range over computation sequences and points on computation sequences. GPL is a version of the predicate calculus, similar to Parikh's general logic. MPL is a modal logic, and is the only modal process logic we know of which incorporates two fundamentally different types of modality. When syntactic programs are included in MPL, MPL is at least as expressive as PDL('+), Parikh's SOAPL, Pnueli's tense logic or Nishimura's process logic, and contains both Lamport's linear and branching time logics.

We present a tableau method for deciding validity in MPL, based on a new type of **directed** graph, called an LL-graph. From the tableau method we derive a complete proof system for MPL.

Although GPL and MPL are based on the same notions, we find some interesting differences between the two. MPL is decidable in double exponential time, while even a proper subset of GPL, which can express the same properties as MPL, is nonelementary. We are able to show that GPL is decidable only when processes are tree -like, in Parikh's sense. In contrast, out method for deciding MPL in general requires processes which are not tree -like.

Processes are defined on a very abstract level, as sets of computation sequences. Intrinsic to our definition of a process is the notion of deadlock. Both GPL and MPL have provisions for explicitly discussing deadlock, which most other process logics to date ignore.

We also study extensions to PDL. We show, provided only that basic programs are indivisible actions, that extending PDL by a concurrency operator, a global invariance operator and flowgraph programs, among others, adds no expressive power to PDL. Moreover, there is a better way to decide formulas in the extended logic than to translate them to PDL. We extend PDL by adding special Boolean variables, which can be set and tested. Boolean variable PDL efficiently simulates the above extensions, and is shown to be decidable by a faster method than by eliminating Boolean variables.

We prove a lower bound on the complexity of B-PDL which is a function of two parameters, the length of the imput, and the number of variables it contains. The proof involves a compression theorem for functions of several variables, which may be of general use.

19/5/17 (Item 1 from file: 94) DIALOG(R) File 94: JICST-EPlus (c) 2005 Japan Science and Tech Corp(JST). All rts. reserv. JICST ACCESSION NUMBER: 95A0791518 FILE SEGMENT: JICST-E On Cooperative Search in Logic Programming. ZHOU N-F (1) (1) Kyushu Inst. Technol., Fukuoka, JPN Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report (Institute of Electronics, Information and Communication Enginners), 1995, VOL.95, NO.211 (AI95 14-21), PAGE.25-31, FIG.4, REF.11 JOURNAL NUMBER: S0532BBG UNIVERSAL DECIMAL CLASSIFICATION: 681.3:007.51 COUNTRY OF PUBLICATION: Japan LANGUAGE: English DOCUMENT TYPE: Journal ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication ABSTRACT: In this paper, we describe an execution model for executing in parallel search programs in logic programming languages and propose three scheduling strategies, namely, full breadth-first, partial breadth-first, and depth-first. This model divides the search space among the participating machines, but requires neither communication nor dynamic copy. All machines start executing the same independently until branches in the search tree are encountered. In that case, they determine which branches to explore. We investigate the three scheduling strategies and discuss their advantages and disadvantages. We also evaluate the scheduling strategies experimentally for two problems: N-queens and the blocks world problem. (author abst.) DESCRIPTORS: logic programming; search problem; parallel processing; modeling; scheduling; computer program; logic programming language; computer processing system BROADER DESCRIPTORS: computer programming; problem; treatment; operation(processing); software; programming language; formal language; language; method CLASSIFICATION CODE(S): JE08000Z

```
Set
        Items
                Description
                ROOT? ? OR PARENT? ? OR LEAF? ? OR SON OR SONS OR BRANCH? -
S1
             OR TWIG? ? OR FATHER? ? OR STEM? ?
S2 ·
                BTREE OR TREE OR TREES OR TRIES
S3
         9696
                DATASTRUCT? OR DATA()STRUCTURE?
S4
        19917
              ACCESS()(PATH OR PATHS OR ROUTE? OR MEANS) OR LAP OR LOGIC-
             AL() ACCESS?
S5
       177462
                NAME? OR (CHARACTER? OR ALPHANUMERIC) () (SEQUENC? OR STRING-
             ?)
S6
          165
                (CENTRAL OR PRIMAR? OR MAIN) (2N) (DIRECTORY OR DIRECTORIES)
S7
         4813
                (LOGICAL OR PHYSICAL) (N) (NAME? OR ADDRESS?)
S8
        59176
                (PROCESS OR PROCESSES OR PROGRAM? OR ENVIRONMENT? OR OPERA-
             TING()SYSTEM?)(2N)(SAME? OR CONTAIN? OR WITHIN OR WITH()"IN" -
             OR EMBED? OR INTEGRAT? OR INTEGRAL OR MATCHING OR IDENTICAL? -
             OR MATCHED?)
      1096059
                RETURN? OR REFER? OR REDIRECT? OR DIRECTED OR DIRECTING
S9
S10
        12561
                S1 AND (S2 OR S3)
S11
          12
                S10 AND S4
                S10 AND S5
S12
          214
                S12 AND (S7 OR S8 OR S9)
S13
           29
                S10 AND S6
S14
            5
            9
                S1 AND S6
S15
                (S1 OR S2 OR S3) AND S6(3N)S9
S16
            0
S17
                (S1 OR S2 OR S3) AND S6 AND S9
           2
        37060
                (S1 OR S2 OR S3) AND S9
S18
                S18 AND (S4 OR S5) AND S8
S19
           7
S20
           0
                S18 AND S7 AND S8
           57
                S11 OR S13 OR S14 OR S15 OR S17 OR S19
S21
S22
           34
                S21 AND IC=G06F?
           8 · S21 AND MC=(T01-J05B2B OR T01-J05B3)
S23
                S22 OR S23
           34
S24
           34
                IDPAT (sorted in duplicate/non-duplicate order)
S25
              IDPAT (primary/non-duplicate records only)
           34
File 347: JAPIO Nov 1976-2004/Nov (Updated 050309)
         (c) 2005 JPO & JAPIO
File 350: Derwent WPIX 1963-2005/UD, UM &UP=200518
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26/5/4
           (Item 4 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
015647040
            **Image available**
WPI Acc No: 2003-709223/200367
XRPX Acc No: N03-566827
 Processing method for data elements stored in pruned data set, involves
 indicating to user that directory structure, associated with immediate
         directory , exists within main directory structure but
 omitted from display
Patent Assignee: ELECTRONIC DATA SYSTEMS CORP (ELDA-N); UGS PLM SOLUTIONS
  INC (UGSP-N)
Inventor: SOLOMON B J
Number of Countries: 101 Number of Patents: 004
Patent Family:
                    Date
                            Applicat No
                                           Kind
                                                  Date
                                                           Week
             Kind
US 20030126115 A1 20030703 US 200134231
                                            Α
                                                 20011227 200367
WO 200358513 A2 20030717 WO 2002US38939 A
                                                20021206 200367
AU 2002351252 A1 20030724 AU 2002351252
                                                20021206
                                                          200421
EP 1459164
             A2 20040922
                            EP 2002786900
                                                20021206
                                                          200462
                            WO 2002US38939 A
                                                20021206
Priority Applications (No Type Date): US 200134231 A 20011227
Patent Details:
Patent No Kind Lan Pg
                       Main IPC
                                    Filing Notes
                     7 G06F-007/00
US 20030126115 A1
WO 200358513 A2 E
                      G06F-017/50
  Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
  CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
   IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
  OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM
   Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
  GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM
  ZW
AU 2002351252 A1
                      G06F-017/50
                                    Based on patent WO 200358513
EP 1459164 A2 E
                      G06F-003/033 Based on patent WO 200358513
  Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
  GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
Abstract (Basic): US 20030126115 A1
       NOVELTY - The method involves formatting a tree table associated
   with a data set and a display. A pruning indicator display element,
    included as a portion of the display, indicates to a user that a
   directory structure, associated with an immediate parent directory,
   exists within a main directory structure but has been omitted from
   the display.
       DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
   data processing system.
       USE - For processing data elements stored in pruned data set to
   compile and display the pruned data set in data processing system.
       ADVANTAGE - Enables displaying and compiling pruned directory
   listings, thus ensuring easy displaying of entire hierarchy associated
   with two components.
       DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram of
   user interfacing method.
       pp; 7 DwgNo 3/3
Title Terms: PROCESS; METHOD; DATA; ELEMENT; STORAGE; PRUNE; DATA; SET;
  INDICATE; USER; DIRECTORY; STRUCTURE; ASSOCIATE; IMMEDIATE;
  DIRECTORY; EXIST; MAIN; DIRECTORY; STRUCTURE; OMIT; DISPLAY
Derwent Class: T01
International Patent Class (Main): G06F-003/033; G06F-007/00;
  G06F-017/50
International Patent Class (Additional): G06F-017/30
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26/5/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014050853 \*\*Image available\*\* WPI Acc No: 2001-535066/200159

XRPX Acc No: N01-397237

Directory tree reconfiguration for computer system, involves changing primary directory tree into secondary tree, based on selected object and accordingly object position is changed related to objects in other tree

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: MARTINEZ A E; RAHN M D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 6271846 B1 20010807 US 98163919 A 19980930 200159 B

Priority Applications (No Type Date): US 98163919 A 19980930

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6271846 B1 17 G06F-003/00

Abstract (Basic): US 6271846 B1

NOVELTY - A primary directory tree is displayed in user viewable display. When an object is selected from the primary directory, the primary tree is changed into a directory, based on user set locations, such that object lies within root node of new directory. The position of an object is modified corresponding to position of object in secondary directory.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer program product.

USE - For computer system.

ADVANTAGE - Ensures optimum management and organization of objects within directory **tree** without need for changing actual organization structure.

DESCRIPTION OF DRAWING(S) - The figure shows the reanchor command given on a node of a  $\ \ tree$  .

pp; 17 DwgNo 5B/6

Title Terms: DIRECTORY; TREE; RECONFIGURE; COMPUTER; SYSTEM; CHANGE; PRIMARY; DIRECTORY; TREE; SECONDARY; TREE; BASED; SELECT; OBJECT; ACCORD; OBJECT; POSITION; CHANGE; RELATED; OBJECT; TREE

Derwent Class: T01

International Patent Class (Main): G06F-003/00

26/5/10 (Item 10 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013930261 \*\*Image available\*\*
WPI Acc No: 2001-414475/200144

XRPX Acc No: N01-306917

Similar featured-variable search for internet, involves assigning link which is followed so that lower order node approached from main directory, with minimum distance is referred, on tree structure index searching

Patent Assignee: NIPPON TELEGRAPH & TELEPHONE CORP (NITE )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 2001134594 A 20010518 JP 99316327 A 19991108 200144 B
JP 3615439 B2 20050202 JP 99316327 A 19991108 200511

Priority Applications (No Type Date): JP 99316327 A 19991108

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 2001134594 A 14 G06F-017/30

JP 3615439 B2 19 G06F-017/30 Previous Publ. patent JP 2001134594

Abstract (Basic): JP 2001134594 A

NOVELTY - The lower order empty nodes of an hierarchy, are detected at time of construction of **tree** structure index. A link is assigned and is followed so that the lower order node which can be approached from **main directory** with minimum distance is **referred**, during searching **tree** structure index. Within the **leaf** node, the nearest neighbor point is searched based on near featured-variable vector.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Similar featured-variable search apparatus;
- (b) Recording medium

USE - For searching multimedia data on internet.

ADVANTAGE - Even the intermediate nodes on **tree** structure can be determined easily by this method and similar featured-variable search efficiency is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the components of similar featured-variable search apparatus. (Drawing includes non-English language text).

pp; 14 DwgNo 1/13

Title Terms: SIMILAR; VARIABLE; SEARCH; ASSIGN; LINK; FOLLOW; SO; LOWER; ORDER; NODE; APPROACH; MAIN; DIRECTORY; MINIMUM; DISTANCE; REFER; TREE; STRUCTURE; INDEX; SEARCH

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06T-007/00

26/5/14 (Item 14 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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011751794 \*\*Image available\*\*
WPI Acc No: 1998-168704/199815

XRPX Acc No: N98-133999

Referred -to variable determining method used by debugger of computer program - generating block tree structure information indicating nesting relationship between blocks generating section information and generating variable- name -to-block correspondence information

Patent Assignee: FUJITSU LTD (FUIT )

Inventor: KITADATE Y

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 5721924 19980224 US 93149777 Α 19931110 199815 B Α US 96758299 Α 19961203

JP 3205406 B2 20010904 JP 92299891 A 19921110 200152

Priority Applications (No Type Date): JP 92299891 A 19921110

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5721924 A 47 G06F-009/00 Cont of application US 93149777 JP 3205406 B2 22 G06F-009/45 Previous Publ. patent JP 6149589

Abstract (Basic): US 5721924 A

The method comprises generating block **tree** structure information indicating a nesting relationship between blocks in the source program in the structure of a **tree** by corresponding a node of the **tree** to the block, where the node contains a pointer to the node corresponding to the outer block directly containing the block.

The method further comprises generating variable- name -to-block correspondence information for storing, corresponding to a variable name defined in the source program, a set of blocks in which a variable having the variable name is defined, and

determining the **referred** -to variable by searching the nodes in the **tree** structure information from the node of the block specified by the pointer in the section including the specific position to the **root** of the **tree** and selecting a variable having the specific variable **name** which is defined in the first node searched in the searching step and which also is included in blocks stored in the variable- **name** -to-block correspondence information corresponding to the variable **name**.

USE - In a debugger, interpreter, etc. Obtaining a value of a referred -to variable defined in a source program having a specific variable name referred to at a specific position in a source program written in a language having a block structure.

Dwg.3A/26
Title Terms: REFER; VARIABLE; DETERMINE; METHOD; COMPUTER; PROGRAM;
GENERATE; BLOCK; TREE; STRUCTURE; INFORMATION; INDICATE; NEST; RELATED;
BLOCK; GENERATE; SECTION; INFORMATION; GENERATE; VARIABLE; NAME; BLOCK;
CORRESPOND; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-009/00; G06F-009/45

International Patent Class (Additional): G06F-011/36

26/5/14 (Item 14 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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011751794 \*\*Image available\*\*
WPI Acc No: 1998-168704/199815

XRPX Acc No: N98-133999

Referred -to variable determining method used by debugger of computer program - generating block tree structure information indicating nesting relationship between blocks generating section information and generating variable- name -to-block correspondence information

Patent Assignee: FUJITSU LTD (FUIT )

Inventor: KITADATE Y

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 5721924 Α 19980224 US 93149777 Α 19931110 199815 B US 96758299 Α 19961203

JP 3205406 B2 20010904 JP 92299891 A 19921110 200152

Priority Applications (No Type Date): JP 92299891 A 19921110

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5721924 A 47 G06F-009/00 Cont of application US 93149777 JP 3205406 B2 22 G06F-009/45 Previous Publ. patent JP 6149589

Abstract (Basic): US 5721924 A

The method comprises generating block **tree** structure information indicating a nesting relationship between blocks in the source program in the structure of a **tree** by corresponding a node of the **tree** to the block, where the node contains a pointer to the node corresponding to the outer block directly containing the block.

The method further comprises generating variable- name -to-block correspondence information for storing, corresponding to a variable name defined in the source program, a set of blocks in which a variable having the variable name is defined, and

determining the **referred** -to variable by searching the nodes in the **tree** structure information from the node of the block specified by the pointer in the section including the specific position to the **root** of the **tree** and selecting a variable having the specific variable **name** which is defined in the first node searched in the searching step and which also is included in blocks stored in the variable- **name** -to-block correspondence information corresponding to the variable **name**.

USE - In a debugger, interpreter, etc. Obtaining a value of a referred -to variable defined in a source program having a specific variable name referred to at a specific position in a source program written in a language having a block structure.

Dwg.3A/26

Title Terms: REFER; VARIABLE; DETERMINE; METHOD; COMPUTER; PROGRAM; GENERATE; BLOCK; TREE; STRUCTURE; INFORMATION; INDICATE; NEST; RELATED; BLOCK; GENERATE; SECTION; INFORMATION; GENERATE; VARIABLE; NAME; BLOCK; CORRESPOND; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-009/00; G06F-009/45

International Patent Class (Additional): G06F-011/36

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013525088/9
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
013525088
             **Image available**
WPI Acc No: 2001-009294/200102
XRPX Acc No: N01-006988
  Implementing a tree system for distributed objects by storing in a parent
  object the address of a son object if in the same process and information
  sending enquiry back to central directory if not
Patent Assignee: ALCATEL (COGE ); ALCATEL SA (COGE )
Inventor: BANCTEL F; PIETRE A
Number of Countries: 029 Number of Patents: 006
Patent Family:
Patent No
             Kind
                     Date
                             Applicat No
                                            Kind
                                                   Date
                             EP 2000400870
                                                  20000330
                                                           200102
EP 1041498
              A1
                   20001004
                                             Α
                                                  19990401
                                                            200102
FR 2791788
              Α1
                   20001006
                             FR 994072
                                             Α
WO 200060452
                   20001012
                             WO 2000FR802
                                                  20000330
                                                            200102
              Α2
                                             Α
                   20001023
                            AU 200036629
                                                  20000330
                                                            200107
AU 200036629
              Α
                                             Α
AU 747472
               В
                   20020516
                             AU 200036629
                                             Α
                                                  20000330
                                                            200244
                   20021203
                             JP 2000609878
                                             Α
                                                  20000330
                                                            200309
JP 2002541544 W
                             WO 2000FR802
                                                  20000330
                                             Α
Priority Applications (No Type Date): FR 994072 A 19990401
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                     Filing Notes
             Al F
                     9 G06F-017/30
EP 1041498
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI
FR 2791788
             A1
                       G06F-012/08
WO 200060452 A2 F
                       G06F-009/00
   Designated States (National): AU CA JP US
                       G06F-009/00
AU 200036629 A
                                     Based on patent WO 200060452
                                     Previous Publ. patent AU 200036629
AU 747472
              В
                       G06F-009/00
                                     Based on patent WO 200060452
                                     Based on patent WO 200060452
JP 2002541544 W
                    16 G06F-009/46
Abstract (Basic): EP 1041498 A1
        NOVELTY - A central directory (Pr0) controls the search for all
    objects and includes a data structure (TabO) which lists all parent/son
    relationships with a process address for the final object. A parent
    object (A) contains the address of a son object (B) if the latter is in
    the same process but otherwise has information to send the enquiry back
    to the central directory (PrO) which uses the data structure (TabO) to
    search a different indicated process.
        USE - To manage a tree system for distributed objects
        ADVANTAGE - The search for an object is not frustrated by an
    intermediate process being out of service and the central directory is
    able to route enquiries to a process or corresponding redundant process
    correctly using current system data
        DESCRIPTION OF DRAWING(S) - The drawing shows the central directory
    and processes
        Central directory (Pr0)
        Data structure (Tab0)
        Parent object (A)
        Son object (BB)
        pp; 9 DwgNo 2/2
Title Terms: IMPLEMENT; TREE; SYSTEM; DISTRIBUTE; OBJECT; STORAGE; PARENT;
  OBJECT; ADDRESS; SON; OBJECT; PROCESS; INFORMATION; SEND; ENQUIRY; BACK;
  CENTRAL: DIRECTORY
Derwent Class: T01
International Patent Class (Main): G06F-009/00; G06F-009/46; G06F-012/08;
  G06F-017/30
International Patent Class (Additional): G06F-015/16
File Segment: EPI
Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B3
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26/5/20 (Item 20 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008052017 \*\*Image available\*\*
WPI Acc No: 1989-317129/198944

XRPX Acc No: N89-241416

File management system for computing system - uses object data structures which add layer between user and data files allowing computer to refer to data structures

Patent Assignee: HEWLETT-PACKARD CO (HEWP ); DYSART J A (DYSA-I)
Inventor: CROW W M; DYSART J A; MCBRIDE B W; MURDOCH B; SENIOR J R F;
SHOWMAN P S; WHELAN C H; WILLIAMS P M; FRANCIS J R; SENIOR J R; WHELAN C

Number of Countries: 013 Number of Patents: 016 Patent Family:

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Patent No	Kind		Applicat No		Date	Week	
EP 339220	Α	19891102	EP 8910408	2 A	19890308	198944	В
AU 8933074	Α	19891026				198951	
US 4953080	Α	19900828	US 8818651	6 A	19880425	199037	
CN 1046807	Α	19901107				199129	N
AU 9213026	Α	19920528	AU 8933074	A	19890417	199230	
			AU 9213026	A	19920319		
AU 9213027	Α	19920528	AU 8933074	Α	19890417	199230	
			AU 9213027	Α	19920319		
AU 9213028	Α	19920528	AU 8933074	A	19890417	199230	
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US 5175848	Α	19921229	US 8818651	6 A	19880425	199303	
			US 9052030	3 A	19900507		
US 5185885	Α	19930209	US 8818651	6 A	19880425	199308	
			US 9052032	8 A	19900507		
AU 638635	В	19930701	AU 9213026	A	19920319	199333	N
			AU 8933074	,A	19890000		
AU 638636	В	19930701	AU 9213027	A	19920319	199333	N
			AU 8933074	A	19890000		
AU 638637	В	19930701	AU 9213028	A	19920319	199333	N
			AU 8933074	A	19890000		•
CA 1326565	С	19940125	CA 597626	А	19890424	199409	
US 5625809	Α	19970429	US 8818651	6 A	19880425	199723	
			US 9052185	6 A	19900507		
			US 9290517	2 A	19920624		
			US 9423186	1 A	19940422		
US 5899996	A	19990504	US 8818651	6 A	19880425	199925	
			US 9052030	8 A	19900507		
			US 9294959	1 A	19920922		
KR 9707759	В1	19970516	KR 895352	A	19890424	199942	
Priority Applications (No Type Date): US 88186516 A 19880425; US 90520308 A							
19900507; U	S 905	20328 A 19	900507; US	90521856 A	A 19900507	; US 929	05172 A
19920624; US 94231861 A 19940422; US 92949591 A 19920922							
Cited Patents: Jnl.Ref; A39025; No-SR.Pub							
Patent Details:							
Patent No Kind Lan Pg Main IPC Filing Notes							
EP 339220 A E 19							
Designated States (Pegional). PF CW DF FP CP IT II NI							

Designated States (Regional): BE CH DE FR GB IT LI NL

	pesignated	States (	Regional): BE (	CU DE LE CE II PI NP
US	4953080	A 438		
ΑU	9213026	A	G06F-015/20	Div ex application AU 8933074
ΑU	9213027	A	G06F-015/20	Div ex application AU 8933074
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US	5175848	A 94	G06F-007/00	Div ex application US 88186516
				Div ex patent US 4953080
US	5185885	A 94	G06F-015/40	Div ex application US 88186516
				Div ex patent US 4953080
ΑU	638635	В	G06F-015/20	Div ex application AU 8933074
				Previous Publ. patent AU 9213026
ΑU	638636	В	G06F-015/20	Div ex application AU 8933074
				Previous Publ. patent AU 9213027
ΑU	638637	В	G06F-015/20	Div ex application AU 8933074

A	98 G06F-017/30	Previous Publ. patent AU 9213028 Div ex application US 88186516
		Cont of application US 90521856
		Cont of application US 92905172
	•	Div ex patent US 4953080
Α	G06F-007/00	Div ex application US 88186516
		Cont of application US 90520308
		Div ex patent US 4953080
		Cont of patent US 5175848
С	G06F-015/20	
В1	G06F-009/44	
	A C	A G06F-007/00 C G06F-015/20

Abstract (Basic): EP 339220 A

A file management system for a computer includes several, application programs, (101,106), data files (221,223), class data structures and object data structures (202,210). Each class data structure includes a reference to one application program only of the whole. Each object data structure includes a reference to one structure of the whole and a reference to at least one data file from the whole. The use of object data structures adds a layer between a user of the computer and data files allowing the computer to refer to an object data structure and access files, associated with the object data structure, using a tag which is inaccessible to the user. The user refers to an object based on the objects physical location on the screen.

Additionally, the file management system includes several link data structures each link data structure includes a reference to a first object data structure of the memory object data structures which serve as a parent object of the link and including a reference to a second object data structure of the many, which serves as a child object of the links.

USE/ADVANTAGE - Management of data within computer system. System allows user to file and use their data in any number of locations by linking those locations to actual data object.

Title Terms: FILE; MANAGEMENT; SYSTEM; COMPUTATION; SYSTEM; OBJECT; DATA; STRUCTURE; ADD; LAYER; USER; DATA; FILE; ALLOW; COMPUTER; REFER; DATA; STRUCTURE

Derwent Class: T01

International Patent Class (Main): G06F-007/00; G06F-009/44;

G06F-015/20 ; G06F-015/40 ; G06F-017/30

International Patent Class (Additional): G06F-001/00; G06F-013/14;

G06F-015/419 File Segment: EPI

```
Set
        Items
                Description
                ROOT? ? OR PARENT? ? OR LEAF? ? OR SON OR SONS OR BRANCH? -
S1
             OR TWIG? ? OR FATHER? ? OR STEM? ?
S2
      1103080
                BTREE OR TREE OR TREES OR TRIES
S3
                DATASTRUCT? OR DATA()STRUCTURE?
S4
             ACCESS()(PATH OR PATHS OR ROUTE? OR MEANS) OR LAP OR LOGIC-
S5
      7751670
                NAME? OR (CHARACTER? OR ALPHANUMERIC)()(SEQUENC? OR STRING-
S6
         5818
                (CENTRAL OR PRIMAR? OR MAIN) (2N) (DIRECTORY OR DIRECTORIES)
S7
         6585
                (LOGICAL OR PHYSICAL) (N) (NAME? OR ADDRESS?)
S8
                (PROCESS OR PROCESSES OR PROGRAM? OR ENVIRONMENT? OR OPERA-
             TING()SYSTEM?)(2N)(SAME? OR CONTAIN? OR WITHIN OR "WHITH"()"I-
             N" OR EMBED? OR INTEGRAT? OR INTEGRAL OR MATCHING OR IDENTICA-
             L? OR MATCHED?)
S9
      8379785
                RETURN? OR REFER? OR REDIRECT? OR DIRECTED OR DIRECTING
        64590 .
S10
                S1(10N)S2
S11
          170
                S8(S)S10
S12
          10
                S11(S)(S4 OR S5 OR S6)
S13
          16
                S11(S)S9
          21
S14
                S12 OR S13
S15
           1
                S7(S)S11
S16
          21
                S14 OR S15
S1.7
          16
                RD (unique items)
S18
          8
                S17 NOT PY>1999
      2473
S19
                S1(5N)S8
S20
          45 · S19(S)S2
S21
          49
                S20 OR S18
S22
           33
                RD (unique items)
S23
          28
                S22 NOT PY>1999
File 275:Gale Group Computer DB(TM) 1983-2005/Mar 18
         (c) 2005 The Gale Group
     47:Gale Group Magazine DB(TM) 1959-2005/Mar 18
         (c) 2005 The Gale group
     75:TGG Management Contents(R) 86-2005/Mar W1
         (c) 2005 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2005/Mar 18
         (c) 2005 The Gale Group
File 16:Gale Group PROMT(R) 1990-2005/Mar 18
         (c) 2005 The Gale Group
File 624:McGraw-Hill Publications 1985-2005/Mar 18
         (c) 2005 McGraw-Hill Co. Inc
File 484: Periodical Abs Plustext 1986-2005/Mar W2
         (c) 2005 ProQuest
File 613:PR Newswire 1999-2005/Mar 18
         (c) 2005 PR Newswire Association Inc
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 141:Readers Guide 1983-2005/Dec
         (c) 2005 The HW Wilson Co
File 239:Mathsci 1940-2005/Apr
         (c) 2005 American Mathematical Society
File 696:DIALOG Telecom. Newsletters 1995-2005/Mar 17
         (c) 2005 The Dialog Corp.
File 553: Wilson Bus. Abs. FullText 1982-2004/Dec
         (c) 2005 The HW Wilson Co
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Mar 18
         (c) 2005 The Gale Group
File 674:Computer News Fulltext 1989-2005/Mar W2
         (c) 2005 IDG Communications
File
     88:Gale Group Business A.R.T.S. 1976-2005/Mar 17
         (c) 2005 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 635:Business Dateline(R) 1985-2005/Mar 18
         (c) 2005 ProQuest Info&Learning
    15:ABI/Inform(R) 1971-2005/Mar 18
         (c) 2005 ProQuest Info&Learning
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File 9:Business & Industry(R) Jul/1994-2005/Mar 17 (c) 2005 The Gale Group

File 13:BAMP 2005/Mar W1

(c) 2005 The Gale Group

File 810: Business Wire 1986-1999/Feb 28

(c) 1999 Business Wire

File 610: Business Wire 1999-2005/Mar 18

(c) 2005 Business Wire.

File 647:CMP Computer Fulltext 1988-2005/Feb W4

(c) 2005 CMP Media, LLC

File 98:General Sci Abs/Full-Text 1984-2004/Dec

(c) 2005 The HW Wilson Co.

File 148: Gale Group Trade & Industry DB 1976-2005/Mar 18

(c) 2005 The Gale Group

File 634:San Jose Mercury Jun 1985-2005/Mar 17

(c) 2005 San Jose Mercury News

23/3,K/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01793575 SUPPLIER NUMBER: 16981779 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Navigating NetWare 4.1 (Novell's NetWare 4.1, network operating system)
(includes related article on converting from version

3.X) ((Interoperability supplement)) (Product Announcement)

Kalman, Steve

LAN Magazine, v10, n5, pS8(5)

May, 1995

DOCUMENT TYPE: Product Announcement ISSN: 0898-0012 LANGUAGE:

ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 4352 LINE COUNT: 00337

recreate it in a new environment.

In NetWare 4.1, a program called DSMerge allows trees to be merged. The ability to rename containers and to move entire branches of the tree are essential to the process. (Containers off the root must have unique names.) These new functions are available to every administrator as part of NDS management, regardless of...

23/3,K/3 (Item 3 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2005 The Gale Group. All rts. reserv.

01371465 SUPPLIER NUMBER: 08761840 (USE FORMAT 7 OR 9 FOR FULL TEXT). A mini-browser for Pascal and C++. (tutorial)

Entsminger, Gary

Computer Language, v7, n8, p45(12)

August, 1990

DOCUMENT TYPE: tutorial ISSN: 0749-2839 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 2973 LINE COUNT: 00230

... a complex object such as a program or module is as a hierarchy or family tree of objects. Each object in the list can be simple oust data, for example) or...

...Complex objects are either base or derived. Base objects are at the top of the  ${\tt tree}$  ; derived objects are on  ${\tt branches}$  .

A tree contains a program (a big object), and each node of the tree contains a program module (a smaller object). The modules can be trees themselves ad infinitum. An object has its own internal data and an interface through which...

(Item 4 from file: 88) 23/3,K/23 DIALOG(R) File 88: Gale Group Business A.R.T.S. (c) 2005 The Gale Group. All rts. reserv.

SUPPLIER NUMBER: 06752023

Garbage collection for Prolog based on WAM. (technical) Appleby, Karen; Carlsson, Mats; Haridi, Seif; Sahlin, Dan

Communications of the ACM, v31, n6, p719(23)

June, 1988

DOCUMENT TYPE: technical ISSN: 0001-0782 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

8222 LINE COUNT: 00814 WORD COUNT:

backtracking. In this case it is only reachable via a choice point. Since an environment refers to its parent environment and several environments may have the same parent, the environments form a tree which has one active leaf, E, and zero or more inactive leaves. Figure 3 shows the tree structure of the...